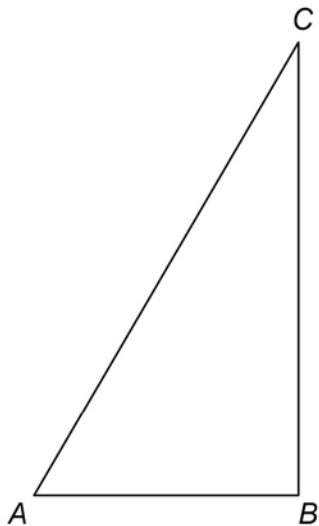


6 ABC is a right-angled triangle.



D is the point on hypotenuse AC such that $AD = AB$.

The area of $\triangle ABD$ is equal to half that of $\triangle ABC$.

6 (a) Show that $\tan A = 2 \sin A$

[4 marks]

6 (b) (i) Show that the equation given in part **(a)** has two solutions for $0^\circ \leq A \leq 90^\circ$

[2 marks]

6 (b) (ii) State the solution which is appropriate in this context.

[1 mark]